DATA RESTORATION USING DYNAMIC VIRTUAL STORAGE

ABSTRACT

A system is described including a processor, a storage system having one or more physical storage devices, and a controller coupled to the processor and the storage system. The controller maintains a virtual storage map (VSM) allocating a primary virtual storage and a secondary virtual storage within a storage system. The controller stores data received from the processor prior to a time T0 on the primary virtual storage, stores data received from the processor after time T0 on the secondary virtual storage. The controller updates the VSM in response to a save command to reallocate the primary virtual storage to include data written to the secondary virtual storage. In this manner, the system can backup data in a manner that appears almost instantaneous to the user.